




Northeast Power Coordinating Council Comments U.S.-Canadian Power System Outage Task Force December 5th Public Meeting – New York City

My name is Charles J. Durkin, Jr. I am Chairman of the Northeast Power Coordinating Council ("NPCC"). NPCC is the international regional electric reliability organization for northeastern North America. NPCC was formed in January 1966 shortly after the 1965 Northeast Blackout to promote the reliability and efficiency of the interconnected power systems within its geographic area through the coordination of their system planning and operating procedures. NPCC provides reliability assurance for New York and the New England States, as well as the Ontario, Quebec and Maritime Provinces.

The U.S.-Canadian Task Force is to be commended for its efforts analyzing the events leading up to the Blackout experienced on August 14th. The Interim Report clearly indicates that the NPCC Region was not the cause of the events, but was engulfed by an unprecedented power tsunami. In fact, the NPCC Region withstood, without advance warning, the initial power surge from the Midwest and remained stable, but was eventually overwhelmed by the cumulative effects of the large onrushing power flows, and severe frequency and load oscillations. These subsequent power swings islanded portions of the NPCC Region from the rest of the eastern interconnection.

 The dynamic interaction experienced within the NPCC Region continues to be the subject of additional analysis. NPCC respectfully requests that the U.S.-Canadian Task Force maintain its body of technical experts and



Northeast Power Coordinating Council Comments U.S.-Canadian Power System Outage Task Force December 5th Public Meeting – New York City

structure and asks for their support during the completion of NPCC's on-going post-Blackout analyses.

Initial findings in the Interim U.S.-Canadian Report indicate that FirstEnergy and the Midwest Independent System Operator (MISO) were in violation of North American Electric Reliability Council (NERC) reliability standards and that the fundamental obligation of each interconnected system to operate its system in an analyzed state was not complied with on August 14th by these organizations.

The NERC Board of Trustees, in its post-Blackout Near Term Actions letter, emphasized that the reliable operation of the bulk electric system requires the responsible entities to understand the importance of assuring their systems are operated within their design criteria and within conditions known to be reliable through analytic study. If the power system enters into an unanalyzed state, these entities must have the authority and capability to immediately take appropriate action to return the power system to a safe condition. The Interim Report makes clear that the appropriate action was not taken and the capability to take such action may have been inadequate.

Fundamental reliability requirements derive from two concepts – adequacy and security: i.e., having sufficient assets in place to meet load, and operating those assets in a prudent manner.



Northeast Power Coordinating Council Comments U.S.-Canadian Power System Outage Task Force December 5th Public Meeting – New York City

Adequacy requires that the necessary assets be in place (including not only generation and transmission assets, but also related control equipment, training and procedures, procedural coordination among neighboring entities, contingency analysis, and other computational tools and equipment) with the appropriate backup to permit the load to be supplied while maintaining defined security margins. It appears the FirstEnergy and MISO assets were inadequate to contain the initial events of August 14th in their system.

Operational security requires the coordinated operation of assets to maintain specified reliability margins (often referred to as “N-1” or first contingency capability) in order to minimize the probability of cascading failures.

✱ Providing for operator training and corresponding emergency action plans, ✱
✱ and tree trimming management are examples of programs that need to be in-
place so the system can be operated securely. Ability to coordinate the operation of assets on August 14th was clearly deficient.

The system must be operated consistent with its design in order to reap the economic and reliability benefits associated with interconnections. One primary responsibility of operating entities is that local actions must be taken ✱
to keep local problems from spreading. This did not happen August 14th.

The design-basis approach for assuring the reliability of the power system
used in NPCC requires that the system be designed in order to withstand
representative contingencies as specified in its criteria, and subsequently



Northeast Power Coordinating Council Comments U.S.-Canadian Power System Outage Task Force December 5th Public Meeting – New York City

operated consistent with that design within an analyzed state. Parameters for assessing system design and operation for normal transfers, emergency transfers and extreme contingency assessment are defined in the NPCC criteria.

NPCC supports current efforts to provide for enforceable reliability criteria industry-wide. NPCC's reliability criteria are mandatory under the *NPCC Membership Agreement* and enforceable through its Reliability Compliance and Enforcement Program. This program continues to demonstrate its effectiveness in ensuring that NPCC's membership meets the reliability requirements. The program focuses on those criteria and standards that have a direct impact on the reliability of the bulk power system. Compliance to reliability standards in NPCC is attained through a combination of non-monetary sanctions, including formal notification to state and provincial regulatory authorities, and well-designed markets. The NPCC program has clearly demonstrated the effectiveness of using non-monetary sanctions and market mechanisms to achieve reliability objectives.

Shame
Then

NPCC maintains that development of North American-wide reliability standards should represent a floor rather than a ceiling. More stringent regional criteria and rules that acknowledge unique regional needs make for a more robust overall system, especially when operations outside of normal system conditions are encountered. Additional regional reliability requirements provide for extra margin that adds flexibility when extraordinary events occur.



**Northeast Power Coordinating Council Comments
U.S.-Canadian Power System Outage Task Force
December 5th Public Meeting – New York City**

In closing, I want to thank you for the opportunity to share NPCC's suggestions for improving the reliability of the electric system in order to minimize the likelihood of wide-spread blackouts. Each interconnected system must provide an adequate set of tools, resources, and procedures necessary to operate the system according to its design and within conditions known to be reliable through analytic study. Each system must be capable of taking local action to keep local problems from spreading. The events of August 14th clearly demonstrate the need for mandatory reliability standards for the electric system, standards that define not only the reliability objective, but also the obligation to provide the capability to achieve that objective.